

cent solution slightly (3 or 4 days) retards the growth of schizomycetes and, as far as the streptococci (or other bacteria possessing a relatively weaker vitality) are concerned, makes the nutritive medium unsuitable for their life (that is, arrests their growth). As regards the staphylococcus aureus and other more stable micro-organisms, their growth ceases only in a 7 per cent and stronger solution of the substance. 4. But even a 50 per cent solution of antipyrin proves entirely powerless to destroy either the staphylococcus or streptococcus, and that even when the latter remain in contact with the former for full ten minutes. [The antipyrinized bacteria when subsequently inoculated in a meat peptone jelly, give as beautiful cultures as those are which are derived from the non-antipyrinized ones.] 5. On the whole, the anti-bacterial effects of antipyrin are at least ten times less powerful than those of carbolic acid [which, according to Nothnagel and Rossbach, destroys microorganisms only when the strength of its solution reaches 40 per cent]. In other words, antipyrin belongs to very weak antiseptic substances.—*Vratch*, 1888; Nos. 16 and 17.

**III. Anti-bacterial Action of Antipyrin.** By Dr. NIKOLAI F. KELDYSH (St. Petersburg, Russia).—Dr. Keldysh has carried out numerous bacteriological experiments for verifying Neudoerfer's startling statement concerning the antiseptic power of antipyrin. He inoculated dry pure cultures of the staphylococcus aureus and albus and micrococcus prodigiosus in a solid nutritious jelly containing 2.5, 5 and 10 per cent antipyrin. In every one of the experiments an excellent growth of the microbes was invariably obtained which did not in any way whatever differ from that in a set of controlling test-tubes containing a non-antipyrinized nutrient jelly. There was not even any retardation in the bacterial growth; hence Dr. Keldysh goes still further than Dr. Lenevitch and says that antipyrin does not possess any antiseptic properties at all.—*Russkaia Meditzina*, No. 26, 1888.

**IV. Tetanus Hydrophobicus.** By Dr. SAMSON A. MAISURIANTI (Tiflis, Russia).—At a meeting of the Caucasian Medical Society, Dr. Maisüriantz showed an extremely rare case of Rose's *Kopftetanus*, or tetanus hydrophobicus, in a male patient. About six

weeks before an ulcer had appeared in his right temporal region. Under the influence of some simple domestic means it began to heal in three weeks or so. During the cicatrization the man commenced to experience pain about his face, while, a couple of days later, there supervened severe trismus, dysphagia and paralysis of the right facial nerve. All other muscles of his body remained intact. Some improvement followed the use of bromide of potassium in large doses; hence the author hopes that the case will terminate favorably. International literature is said to contain only 17 similar cases, with 5 recoveries. In all but two the symptomatology was identical with that of Maisiriantz's case, while in Thaden's the upper limbs were simultaneously affected, and in Hadlich's general spasms supervened.—*Proceedings of the Caucasian Medical Society*, No. 8, 1887-88.

VALERIUS IDELSON (Berne).

**V. The Technique and Value of Transplantation of Mucous membrane.** By A. WOELFLER (Graz). In the human subject the functional integrity of a part is endangered by the presence of extensive cicatrices, or their production by excision. The excision of a cicatrix without union of the wounded edges of the part causes a repetition of the disturbances with the appearance of a new cicatrix. This is especially true of the mucous membranes of the mouth, œsophagus, rectum, urethra and eyelids. Woelfler has endeavored to remedy the defects in mucous membranes caused by excision as removal of cicatrices with mucous membrane. This end was obtained by the transplantation of mucous membrane from the human subject. The mucous membrane was removed from either a prolapsus uterus or rectum in strips of 3-4 cm.  $\times$  1-3 cm. The method was similar to that followed by Thiersch with the epidermis. Adhesion occurred with the same certainty as in the case of the skin. This was especially true if the mucous membrane was taken from young subjects and placed on wounds three or four days old. Later on the mucous membrane was transplanted from animals to the human subject. The mucous membrane of the stomach of a frog, the œsophagus of the pigeon, and rabbit, the mucous membrane of the bladder of the rabbit were found